USC Viterbi
School of Engineering

Office of the Dean

MEMORANDUM

To: USC Viterbi faculty

From: Maja Matarić
Vice Dean for Research

Michael Goay
Executive Director of VSoE IT

Date: Monday 23 April, 2012

Subject: VSoE Backup Services

VSoE faculty,

The following memo provides useful information about backup services available and/or recommended to VSoE faculty, provided by Maja Mataric', Vice Dean for Research, and Michael Goay, Executive Director of IT.

Data Backup Services
A computer hard drive crash from a computer malware infection or mechanical failure is an unlikely event though it's a catastrophic one. Backups can be time-consuming, but weigh the few minutes you might spend securing your data against the painstaking task of reconstructing it, or worse, losing it forever, and there's no question which is the preferred alternative. Portable media such as external hard drives, CDs and DVDs aren't the only way to back up your data, nor are they the most convenient. The best method is the one that's easy enough that you'll actually do it, so keep that in mind as you decide which way to go. You'll also need a backup for your backup--one copy at your physical location and another offsite, in case of fire, flood, theft, or other disaster. Ideally, both should be continual and automatic. Here's a guide to the most viable options for you:

A. Viterbi IT Online Backup Service
Viterbi IT offers private cloud-based backup to tenure/tenure-track and full time teaching faculty (with titles of Lecturer, Senior Lecturer, Associate Professor of Engineering Practice, or Professor of Engineering Practice) in the departments it supports, specifically ASTE, BME, CEE, CHEMS, EEP, ISE, and ITP. This service is available at no cost. Backup data is stored on in-house storage infrastructure of Viterbi IT and securely replicated to a remote disaster recovery site for further data protection.
Highlights of the Viterbi IT Online Backup Service:

OHE 200 Los Angeles, CA 90089-1450 Tel: 213-740-7832 | Fax: 213-740-8493 engrdean@usc.edu

- 100GB storage and automated backups at no cost; requests for higher storage quota will be evaluated on a case-by-case basis
- Secure backup - data encrypted in transit and at rest
- Enhanced data security compliance - backup data stays within Viterbi IT storage infrastructure at both local and remote disaster sites; data is not stored in cloud storage of unknown destinations
- Backup and manage multiple computer backups from a single account
- Cross-platform client support: Windows, Mac, Linux, FreeBSD, and Solaris
- Hands-free data backup - set the time and frequency for data backup
- 24 x 7 data access via any browser - view, find, and restore files and folders; centralized data management via the web

How to get started:

1. Go to Viterbi IT Service Desk at http://viterbi.usc.edu/servicedesk and submit a ticket requesting an account for Viterbi IT Online Backup Service
2. An account will be created after your request is received
3. If you are the type to do things yourself, your Online Backup Service account information will be provided to you with step by step instructions to install and configure backup agent software
4. A technician is also available to assist with the installation and configuration of the software via appointment. On-campus visits only
5. Additional information could be found at http://viterbi.usc.edu/resources/vit/services/viterbi-private-cloud-based-backup.htm

B. Viterbi Network Storage

Viterbi IT offers network storage to tenure/tenure-track and full time teaching faculty (with titles of Lecturer, Senior Lecturer, Associate Professor of Engineering Practice, or Professor of Engineering Practice) in departments it supports, specifically ASTE, BME, CEE, CHEMS, EEP, ISE, and ITP. This service is available at no cost. Data is stored on in-house storage infrastructure of Viterbi IT and securely replicated to a remote disaster recovery site for further data protection. Highlights of the Viterbi Network Storage:

- 40GB network storage at no cost; requests for higher storage quota will be evaluated on a case-by-case basis
- Network storage is accessible anywhere with Internet
- Data saved on network storage is securely replicated to a remote site for service protection
- Data saved on network storage is backed up daily with data retention up to 4 weeks
- Enhanced data security compliance - data stays within Viterbi IT storage infrastructure at both local and remote sites
- Data accessible via multiple access protocols: CIFS/SMB, SFTP, and HTTP/web
- Cross-platform client support: Windows, Mac, Linux, FreeBSD, and Solaris

- Windows and Mac clients on USC network can mount/map drives to the network storage

How to get started:

1. Go to Viterbi IT Service Desk at http://viterbi.usc.edu/servicedesk and submit a ticket requesting a VSoE account for Viterbi Network Storage
2. An account will be created after your request is received
3. If you are the type to do things yourself, your VSoE account information will be provided to you with step by step instructions on accessing the network storage
4. A technician is also available to assist via appointment. On-campus visits only.
5. Additional information could be found at http://viterbi.usc.edu/resources/vit/services/viterbi-network-storage.htm

C. USC Digital Repository

USC is offering fee-based network storage (file-server access) service through USC Digital Repository (http://repository.usc.edu/). This service is still in formation and slated for launch in Q2 2012. Details are forthcoming though still sketchy at this point. There are two related press releases about the service:

http://www.nirvanix.com/news-events/press-releases/2011/2011-11-15.aspx
http://uscnews.usc.edu/science_technology/usc_launches_powerful_cloud_archive.html

Highlights of the File-Server Access service:

- $70/TB per month.
- Contact: 213-740-9263
- Data saved on network storage is securely replicated to peer storage in Nirvanix data center
- Data accessible via CIFS/SMB. HTTP or web access is being investigated.
- Windows and Mac clients on USC network can mount/map drives to the network storage

D. Commercial Online Backup Services

Online storage services make a great secondary backup solution because your data is safe in case of burglary or hardware damage. The services generally provide software for file encryption and for scheduling automated, incremental backups, and they typically store your data at multiple remote locations for increased security. Some services even let you share files remotely. The downside of these services is you have to put your trust in a third party to keep your data safe, and that might not be acceptable to you.

They are also the slowest of the backup methods, taking anywhere from 10 minutes to 12 hours to upload 1GB of data and 10 minutes to 3 hours to download. In addition to the type of files and the speed of your computer, the variables that account for the huge disparity include what else is happening on your PC during the backup, the speed of your Internet connection, and network traffic both on your end and at the online backup service.

If you have a limited amount of data, you can use one of the free services, and the upload time would be more reasonable. But if you have a lot of data and are frequently adding to it, the slow speed and the monthly fees can make this a poor long-term choice.
The following web sites provide online data backup review comparisons.
http://online-data-backup-review.toptenreviews.com/
http://en.wikipedia.org/wiki/Comparison_of_online_backup_services

Top rated commercial online backup service providers are:
SugarSync https://www.sugarsync.com/ 100GB @ $14.99 / month
Review: http://online-data-backup-review.toptenreviews.com/sugarsync-review.html

OpenDrive http://www.opendrive.com/ 100GB @ $5.00 / month
Review: http://online-data-backup-review.toptenreviews.com/opendrive-review.html

MyPC Backup http://mypcbackup.com Unlimited @ $9.95 / month
Review: http://online-data-backup-review.toptenreviews.com/mypc-backup-review.html

Dropbox http://www.dropbox.com 100GB @ $19.99 / month
Review: http://online-data-backup-review.toptenreviews.com/dropbox-review.html

For additional information, please contact Michael Goay (mgoay@usc.edu).